

IN THE CLAIMS:

Please amend the claims as follows:

4. (Currently Amended) A silicon nitride material comprising sintering aids including at least Al_2O_3 , and silicon dioxide, in a grain boundary phase, wherein the silicon dioxide in the grain boundary phase and the sintering aids including at least Al_2O_3 in the grain boundary phase have a molar ratio of silicon dioxide to silicon dioxide and sintering aids including at least Al_2O_3 that is > 60% and the silicon nitride material has a silicon oxide nitride content that is < 1%, by weight.

5. (Currently Amended) The silicon nitride material of Claim 4, wherein the material further comprises a sintering aid selected from the group consisting of Y_2O_3 , Sc_2O_3 , rare earth metal oxides, and alkaline earth metal oxides.

6. (Previously Added) The silicon nitride material of Claim 4, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is < 20% by volume.

7. (Previously Added) The silicon nitride material of Claim 4, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is from 0.1 to 17% by volume.

8. (Previously Added) The silicon nitride material of Claim 4, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is from 3 to 15% by volume.

9. (Previously Added) The silicon nitride material of Claim 4, wherein the material further comprises a reactive additive.

10. (Previously Added) The silicon nitride material of Claim 9, wherein the reactive additive is selected from the group consisting of TiO_2 , WO_3 and MoO_3 .

11. (Previously Added) The silicon nitride material of Claim 4, wherein the material further comprises an additive that is retained as a disperse phase.

12. (Currently Amended) The silicon nitride material of Claim 11 wherein the [reactive] additive is selected from the group consisting of SiC , TiN , MoSi_2 , TiCN and HfO_2 and additives which form mixed crystals with the Si_3N_4 .

13. (Previously Added) The silicon nitride material of Claim 4, wherein the material has a porosity that is <2%.

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14. (Currently Amended) A silicon nitride material comprising sintering aids including at least Al_2O_3 and silicon dioxide, in a grain boundary phase, wherein the silicon dioxide in the grain boundary phase and the sintering aids including at least Al_2O_3 in the grain boundary phase have a molar ratio of silicon dioxide to silicon dioxide and sintering aids including at least Al_2O_3 that is > 65% and the silicon nitride material has a silicon oxide nitride content that is < 1% by weight.

15. (Currently Amended) The silicon nitride material of Claim 14, wherein the material further comprises a sintering aid selected from the group consisting of Y_2O_3 , Sc_2O_3 , rare earth metal oxides, and Al_2O_3 alkaline earth metal oxides.

16. (Previously Added) The silicon nitride material of Claim 14, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is < 20% by volume.

17. (Previously Added) The silicon nitride material of Claim 14, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is from 0.1 to 17% by volume.

18. (Previously Added) The silicon nitride material of Claim 14, wherein the sintering aids and the silicon dioxide are present at an amount so that the grain boundary phase is from 3 to 15% by volume.

19. (Previously Added) The silicon nitride material of Claim 14, wherein the material further comprises a reactive additive.

20. (Previously Added) The silicon nitride material of Claim 19, wherein the reactive additive is selected from the group consisting of TiO_2 , WO_3 and MoO_3 .

21. (Previously Added) The silicon nitride material of Claim 14, wherein the material further comprises an additive that is retained as a disperse phase.

22. (Previously Added) The silicon nitride material of Claim 21, wherein the [reactive] additive is selected from the group consisting of SiC , TiN , MoSi_2 , TiCN and HfO_2 and additives which form mixed crystals with the Si_3N_4 .

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23. (Currently Amended) The silicon nitride material of Claim 14, wherein the material has a porosity that is <2%, by volume--